What is Claimed:

1. A system providing control over manufacturing resources of a discrete manufacturing environment, comprising:

a data store, the data store having manufacturing rules for the discrete manufacturing environment; and

a manufacturing control engine, the control engine cooperating with the data store to obtain manufacturing rules for processing to generate manufacturing control instructions.

2. The system as recited in claim 1, further comprising a communications network, the communications network cooperating with the manufacturing control engine to communicate data representative of discrete manufacturing control information to cooperating manufacturing resources.

3. The system as recited in claim 2, wherein the communications network comprises any of: local area network, wide area network, extranet, intranet, peer-to-peer networks, and the Internet.

4. The system as recited in claim 3, wherein the communications network is wireless and/or fixed wire.

5. The system as recited in claim 1, wherein the manufacturing control engine comprises a computing application having one or more instruction sets to instruct a computing environment to process data representative of discrete manufacturing rule information.

6. The system as recited in claim 5, wherein the manufacturing rule information comprises any of: manufacturing resource capacity information, time for manufacturing information, manufacturing resource specifications, raw material information, and manufacturing environment information.

7. The system as recited in claim 1, wherein the manufacturing control engine cooperates with a plurality of manufacturing resources to communicate control information for use in one ore more manufacturing processes.

8. The system as recited in claim 8, wherein the manufacturing control engine receives data from additional control resources comprising any of manual data, manufacturing optimization information, and planning information to generate at least one instruction set to cooperating manufacturing resources for execution.

9. The system as recited in claim 8, wherein the manufacturing control engine utilizes an agent that executes one or more of artificial intelligence techniques to obtain the additional control resource data.

10. The system as recited in claim 1, wherein the manufacturing control instructions is communicated to intelligent devices cooperating with at least one manufacturing resource.

11. The system as recited in claim 8, wherein the additional control resource data is is provided to the manufacturing control engine over a communications infrastructure.

12. A method for generating manufacturing control instructions for manufacturing resources of a manufacturing environment comprising the steps of:

receiving request for the manufacture of a product or product component; and

processing the request by a manufacturing control engine, the manufacturing control engine having at least one instruction set to process data according to predefined manufacturing rules.

13. The method as recited in claim 12, wherein the further comprising communicating the processed data to at least one cooperating manufacturing resource.

14. The method as recited in claim 13, wherein the communicating step comprises establishing communications over a communications network with the manufacturing resource.

15. The method as recited in claim 14, further comprising retrieving from a cooperating data store data manufacturing rules for the manufacturing environment.

16. The method as recited in claim 15, further comprising receiving data from cooperating additional control resources comprising any of manual data, manufacturing optimization application, and planning systems for processing and to generate the manufacturing instructions.

17. A computer readable medium having computer readable instructions to instruct a computer to perform the method as recited in claim 12.

18. A method to generate manufacturing control instructions for manufacturing resources comprising:

providing a manufacturing control engine, the manufacturing control engine capable of receiving and processing data to generate manufacturing control instructions.

19. The method as recited in claim 18 further comprising, providing a data store, the data store cooperating with the manufacturing control engine to manufacturing rules and manufacturing environment conditions.

20. The method as recited inc claim 18 further comprising, providing a communications network, the communication network cooperating with manufacturing control engine to communicate manufacture control instructions to cooperating manufacturing resources.

21. In an information technology system providing communication of data among a global power distribution equipment manufacturer enterprise, a module manufacturing control comprising:

a communications network, the communication network capable of receiving and transmitting data representative of power distribution equipment manufacturing;

a data store, the data store having data representative of power distribution equipment manufacturing ;

a manufacturing control applet, the manufacture control applet cooperating with the communications network and the data store to receive data representative of power distribution manufacturing data, comprising any of power distribution system market information, design information, facilities capacity, planning, and materials information, for processing, such processing comprising any of generating manufacturing control instructions to control at least one cooperating manufacturing resource, wherein the applet communicates with the manufacturing resource through an intelligent device capable of monitoring the manufacturing resource to obtain operational information for communication back to the manufacturing control applet, and wherein the manufacturing control applet uses the operational information to identify additional instructions for execution by the cooperating manufacturing resource.

22. The system as recited in claim 21, wherein the data store has data representative of local and remote manufacturing resources and enterprise data comprising any of planning information, project information, and manufacturing optimization iformation.